

AMENDMENT TO THE CLAIMS

1. (Amended) A method of forming a contact in a pixel sensor cell, comprising:

depositing a passivation layer over a substrate having pixel components;

forming a slot having sidewalls in the passivation layer in an area over a charge collection region of said pixel sensor cell;

implanting a dopant at an angle relative to the sidewalls of the slot through said slot into said charge collection region; and

forming a contact within said slot.

2. (Amended) The method of claim 1, wherein a cross-section of said slot has an oblong shape.

3. (Amended) The method of claim 1, wherein a cross-section of said slot has an elliptical shape.

4. (Amended) The method of claim 1, wherein said slot has an aspect ratio ~~having~~ that is within a range of about 10:1 to 5:1.

5. (Original) The method of claim 1, wherein said dopant is implanted at an angle of about 20° relative to the sidewalls.

6. (Original) The method of claim 1, wherein said charge collection region is a floating diffusion region.

7. (Original) The method of claim 1, wherein said slot is etched in an insulator layer.

8. (Original) The method of claim 1, wherein said dopant is implanted at about 35 KeV.

9. (Amended) The method of claim 1, wherein said dopant is implanted at ~~an implant~~ to a depth in the substrate of about 300 Å to about 400 Å.

10. (Original) The method of claim 1 wherein said dopant is phosphorous.

11. (Amended) A method of forming a contact in a pixel sensor cell comprising:

depositing a passivation layer over a substrate having pixel components;

forming a blocking layer extending over a portion of a charge collection region of said pixel sensor cell;

etching a slot, having sidewalls, into the passivation layer over said charge collection region, wherein said slot extends to contact said charge collection region over portions not covered by said blocking layer;

implanting a dopant at an angle relative to the sidewalls of the slot through said lot into said charge collection region; and

forming a contact within said slot.

12. (Original) The method of claim 11, wherein said blocking layer includes at least one of polysilicon and silicon nitride.

13. (Amended) The method of claim 11, wherein a cross-section of said slot has an oblong shape.

14. (Amended) The method of claim 11, wherein a cross-section of said slot has an elliptical shape.

15. (Amended) The method of claim 11, wherein said slot has an aspect ratio ~~having that~~ is within a range of about 10:1 to 5:1.

16. (Original) The method of claim 11, wherein said dopant is implanted at an angle of about 20° relative to the sidewalls.
17. (Original) The method of claim 11, wherein said charge collection region is a floating diffusion region.
18. (Original) The method of claim 11, wherein said slot is etched in an insulator layer.
19. (Original) The method of claim 11, wherein said dopant is implanted at about 35 KeV.
20. (Amended) The method of claim 11, wherein said dopant is implanted at ~~an implant~~ to a depth in the substrate of about 300 Å to about 400 Å.
21. (Original) The method of claim 11, wherein said dopant is phosphorous.
- 22-38 (Canceled)